

# **MASTER OF SCIENCE IN MANAGEMENT**

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## **THE CONSOLIDATION OF ADMINISTRATIVE FUNCTIONS FOR U.S. MARINE FORCES, PACIFIC**

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Marine Administrative Message 441/99 directed that Marine Corps administration be consolidated above the battalion level. Marine Administrative Message 027/04 directed that over 1,300 Marine Corps billets be civilianized.

To embrace both of these directives, this thesis has attempted to describe the consolidation of administrative functions within U.S. Marine Forces, Pacific, to the installation level and the civilianization all non-inherently-governmental structure. The active duty manpower savings would total 120 marines while actually decreasing the cost of the activity of conducting administration for Oahu-based units by \$1.3 million. It is necessary to consolidate if all 120 billets are to be civilianized. If consolidation does not occur, then the Marine Corps administrator billets within the deploying units will remain inherently governmental and unavailable for conversion. It is only through centralizing non-military tasks that civilianization can be optimized.

A deployable cell concept is described to support the 14 deploying units from Oahu. This concept will have to dovetail with future technologies to successfully deploy over-the-horizon administrative support.

**KEYWORDS:** Consolidated Administration, Civilianization of Military Manpower

## **THE VALUE OF THE 1999 USMC RETENTION SURVEY IN EXPLAINING THE FACTORS THAT INFLUENCE MARINES' SUBSEQUENT STAY/LEAVE BEHAVIOR**

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This study examines the factors that influence active duty Marines in their retention decisions. Data from the 1999 U.S. Marine Corps retention survey are matched with actual retention data from personnel files and limited to Marines eligible to make a stay/leave decision within 24 months of the survey. Four subgroups are defined: enlisted first-term males, enlisted first-term females, enlisted career males, and officer junior grade males.

Bivariate analysis of explanatory control variables (personal characteristics and military background) and focus variables (responses to questionnaire items about civilian employment opportunities and satisfaction with aspects of military life) indicates significant associations with retention. Factor analysis is used to create seven satisfaction dimensions from the satisfaction variables. Multivariate logistic regression model results show that all the satisfaction dimensions are significant for the enlisted first term male model. Satisfaction dimensions for pay and benefits, health benefits, work equity, current job characteristics, and future career opportunities are significant in one or more of the remaining models. Searching for a civilian job is significant in all models and perceptions of civilian job opportunities are significant in most. Among control variables, the interaction of marital status, dependents, and working spouse has a significant effect on retention for first term enlisted males, the only group large enough to test.

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**KEYWORDS:** Marine Corps, Retention, Enlisted Retention, Officer Retention, Survey, Manpower Policy, Manpower, Personnel Attitudes, Perceptions, Satisfaction with Life in the Military

### **THE GLASS CEILING EFFECT AND ITS IMPACT ON MID-LEVEL FEMALE MILITARY OFFICER CAREER PROGRESSION**

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Women in the military are considered a minority population. Recent numbers reflect a 16% representation by women of the total Armed Forces population, with the Air Force displaying the largest proportion (17%), while the Marine Corps has the smallest proportion (6%). Multiple Defense organizations have expressed concern about the progression of women officers into senior leadership positions and the barriers they face to their continued success in the military.

This thesis explores the officer career path experienced by women officers progressing through the ranks, primarily during the mid-level grades of Captain (O-3) through Lieutenant Colonel (O-5). It specifically examines women in the United States Marine Corps and Air Force because these two branches of service currently maintain the smallest and largest proportion of women, respectively. Researchers examined the demographic composition of the individual service communities and conducted personal interviews with mid-level (O-3 to O-5) and senior (O-6 and above) officers to investigate any commonalities paralleling the military to the civilian sector. Specifically, this inquiry looks at the “glass ceiling” effect and any strong similarities or differences that may exist between the Marine Corps and the Air Force. Resulting information is expected to reveal a better understanding of military women’s career progression and factors that may exist in today’s Armed Services and influence their decision to continue or separate from the military.

**KEYWORDS:** Glass Ceiling, Career Progression, Women in the Military

### **CONTINUATION RATES FOR STAFF NONCOMMISSIONED OFFICERS, IN A NON-OBLIGOR STATUS, SERVING IN THE SELECTED MARINE CORPS RESERVE**

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This thesis examines factors that influence the retention of male Staff Noncommissioned Officers (SNCOs) in the Selected Marine Corps Reserve who have completed their six-year initial military obligation. Data were extracted from the Reserve Components Common Personnel Data System. Logit regression was used to measure the influence of various demographic and military variables on retention to 15 years and retention to 18 years. Models were developed to assess the probability of a Marine SNCO staying to 15 years of service and 18 years of service, respectively. The thesis identified four significant factors that influence retention in the 15 year model, and five significant factors in the 18 year model. In both models, single Marines with no dependents are more likely to separate from the Selected Reserves than married Marines with dependents. Staff Sergeants (E6) are more likely to separate from the Selected Reserves than Gunnery Sergeants (E7), while Master Sergeants/First Sergeants and Master Gunnery Sergeants/Sergeants Major are more likely to reach the 15 and 18 year milestones than E7s. Serving in a combat support occupational field proved to be a significant predictor in the 18 year model, but it was not useful in the 15 year model.

**KEYWORDS:** Retention, Attrition

## **SURVIVAL ANALYSIS AND ACCESSION OPTIMIZATION OF PRIOR ENLISTED UNITED STATES MARINE CORPS OFFICERS**

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The purpose of this thesis is first, to analyze the determinants on the survival of United States Marine Corps Officers, and second, to develop the methodology to optimize the accessions of prior and non-prior enlisted officers. Using data from the Marine Corps Officer Accession Career file (MCCOAC), the Cox Proportional Hazards Model is used to estimate the effects of officer characteristics on their survival as a commissioned officer in the USMC. A Markov model for career transition is combined with fiscal data to determine the optimum number of prior and non-prior enlisted officers under the constraints of force structure and budget.

The findings indicate that prior enlisted officers have a better survival rate than their non-prior enlisted counterparts. Additionally, officers who are married, commissioned through MECEP, graduate in the top third of their TBS class, and are assigned to a combat support MOS have a better survival rate than officers who are unmarried, commissioned through USNA, graduate in the middle third of their TBS class, and are assigned to either combat or a combat service support MOS. The findings also indicate that the optimum number of prior enlisted officer accessions may be considerably lower than recent trends and may differ across MOS. Based on the findings, it is recommended that prior enlisted officer accession figures be reviewed.

**KEYWORDS:** Attrition, Accession, Commissioning Sources, Cox Regression, Enlistment, Manpower, Markov, Officer Retention, Optimization, Parametric, Personnel Attrition, Prior-enlisted Officers, Quality of Life, QOL, Recruiting, Retention, Requirements Determination, Semi-parametric, Survival Analysis, Transitional Models, Proportional Hazards

## **SENSITIVITY ANALYSIS FOR AN ASSIGNMENT INCENTIVE PAY IN THE U.S. NAVY ENLISTED PERSONNEL ASSIGNMENT PROCESS IN A SIMULATION ENVIRONMENT**

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The enlisted personnel assignment process is a major part of the United States Navy's Personnel Distribution system. It ensures warfighters and supporting activities receive the right sailor with the right training to the right billet at the right time ( $R^4$ ) and is a critical element in meeting the challenges of Seapower 21 and Global CONOPS. The means to attain these optimal goals need to be customer-centered and should optimize both the Navy's needs and the sailor's interests. Recent studies and a detailing pilot in 2002 used a web-based marketplace with two-sided matching mechanisms to accomplish this vision. This research examines the introduction of an Assignment Incentive Pay (AIP) as part of the U.S. Navy's enlisted personnel assignment process in a simulation environment. It uses a previously developed simulation tool, including the Deferred Acceptance (DA) and the Linear Programming (LP) matching algorithm, to simulate the assignment process.

The results of the sensitivity analysis suggested that the Navy should mainly emphasize sailor quality rather than saving AIP funds in order to maximize utility and the possible matches. Also, when adopting such an introduction policy, the percentage of unstable matches under the LP as the matching algorithm was reduced.

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**KEYWORDS:** Simulation Model, Distribution, Assignment, Two-sided Matching, Detailing, Personnel Policy Analysis, Placement, Incentive Pay

### **THE DETERRENCE EFFECT OF THE IMPLEMENTATION OF THE DEPARTMENT OF DEFENSE'S DRUG PREVENTION POLICY AMONG MILITARY PERSONNEL**

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This thesis examines the magnitude of the deterrence effect associated with the implementation of the “zero tolerance” policy in the U.S. military in the early 1980s. The estimation of the deterrence effect is based on the estimation of linear probability models (LPM). A difference-in-difference estimator is obtained by comparing pre- and post-policy differences in drug use rates in the military and civilian sectors.

This thesis uses data on drug participation drawn from the National Household Survey of Drug Abuse and the DoD Worldwide Health Survey. One study investigates the deterrence effect for the military as a whole, for each branch, for various age groups, and two different measures of drug participation.

The results show that a significant deterrence effect appears to have been associated with the implementation of the “zero tolerance” and drug testing policy, especially for the past year drug participation rates. Additionally, there is evidence that individuals above 25 years old who are more educated and married have smaller drug participation rates than the rest of the population.

**KEYWORDS:** Deterrence Effect, Zero Tolerance, Difference-in-Difference Estimators, Prevention Policy

### **A QUALITATIVE ANALYSIS OF THE EFFECT OF THE REMEDIAL PHYSICAL CONDITIONING PROGRAM ON RETENTION AND ATTRITION AS IT RELATES TO SEMPER FIT AND THE P2T2 ACCOUNT**

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As the Department of the Navy and Marine Corps looks for efficiencies in Force End Strength Management and improvements to Sailor and Marine quality of life, Semper Fit may provide some answers. This research specifically focuses on the Marine Corps Body Composition Program (BCP) and Remedial Physical Conditioning Program (RPCP). The purpose is to qualitatively analyze a program for Marines who are overfat or on remedial Physical Training (PT) programs, focusing on the feasibility of Marines obtaining professional assistance from Semper Fit. The scope of this research evaluates existing programs and analyzes their beneficial affects in improving retention and attrition of RPCP Marines. The research shows that Semper Fit professionals would provide a consistent program, through mandatory training in health, nutrition, and fitness, to those Marines considered overfat and poorly conditioned by USMC standards. Semper Fit would directly support unit commanders with classes in nutrition, health, and fitness tailored for each RPCP Marine. Furthermore, this study validates the newly established Department of Defense Physical Readiness Test Standards recently adapted by the Department of the Navy as highly accurate. This study recommends the Marine Corps further expand the role of Semper Fit in support of the Marine and unit commander.

**KEYWORDS:** Body Composition Methods, Marine Corps Body Composition Program and Remedial Physical Conditioning Program, Military Health and Fitness Programs, Psychological Responses of Marines on the Weight Control Program, Semper Fit, Physical Training, Research, PFT, PRT, P2T2

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### **NON-CITIZENS IN THE U.S. MILITARY**

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The authors examine the history of immigrant military service in the United States, explore the motivations of non-citizen enlistees, and analyze the military performance of non-citizens relative to that of citizen enlistees. Information sources include a comprehensive review of literature, focused interviews with a small sample of non-citizen enlistees, and cohort data files of enlisted personnel who entered the military from 1990 through 1998. The history of non-citizen service corresponds roughly to the nation's history of immigration and naturalization policy, with military service having offered immigrants economic benefits, as well as a path toward assimilation. Service by non-citizens has also provided the country a way to meet its military manpower needs. The results of statistical analyses suggest non-citizens have lower predicted rates of first-term attrition, and higher estimated rates of retention beyond the first term and promotion to E-4. The authors conclude that non-citizens provide a valuable source of manpower, and fulfill important and influential roles for the next generation. Thus, it may be worthwhile to provide non-citizens more information about enlistment opportunities and to implement unique reenlistment incentives, including expedited green-card status for family members. Future research should examine specific ethnic categories of interest within the population of non-citizens.

**KEYWORDS:** Non-citizens, Immigrants, Latinos, Mexicans, Asian/Pacific Islanders, Filipinos, Enlistees, First-Term Enlistees, Attrition, Retention, Promotion